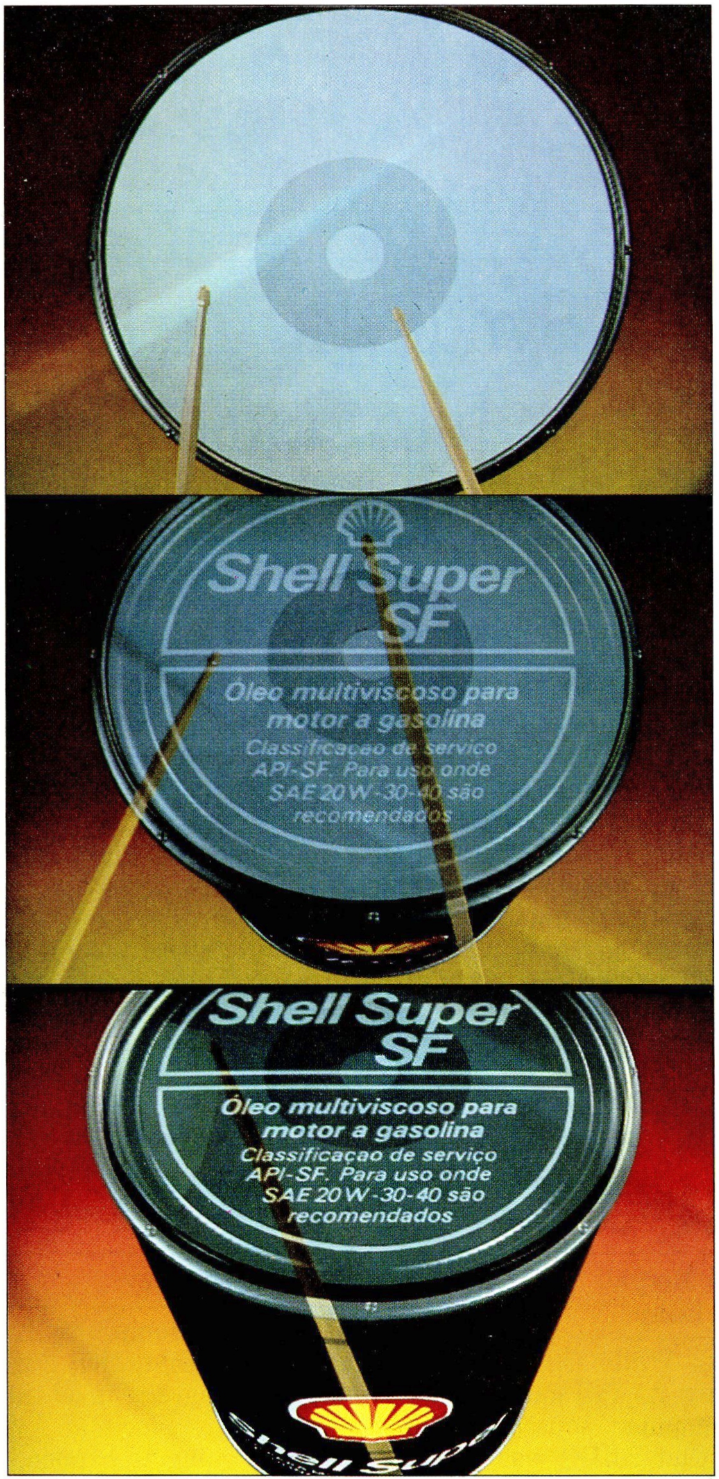
What's New Portfolio


Shell Super SF
Óleo multiviscoso para motor a gasolina
Classificaçao de serviço API-SF. Para uso onde SAE 20W-30-40 são recomendados
Shell Super

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INSIDE ADWEEK

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Have We Seen the Future?

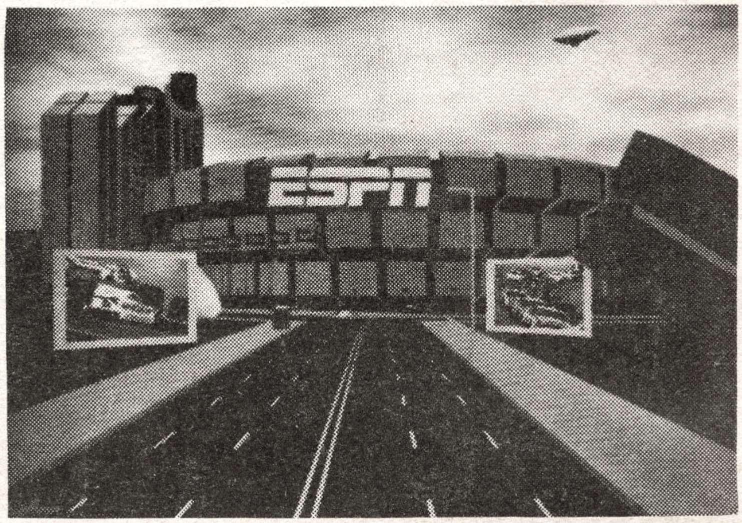
Ogilvy & Mather has come up with the essence of the global village in a 10-second TV spot for Shell Oil. As complex as its international ties are, the ad is simple. Is this the future? asks Larry Dobrow in "What's New Portfolio." *(See page 38)*

1) **AGENCY:** *Standard Ogilvy & Mather Publicidade, Rio de Janiero and Sao Paulo*
CLIENT: *Shell Oil, Rio de Janiero*
MEDIUM: *10-second spot TV*
CREATIVE DIRECTOR: *Clovis Calia*
PRODUCER: *Paulo Dantas*
PRODUCTION COS.: *Zillion, Rio de Janiero, L.A.; MovieArt, Sao Paulo*
GRAPHICS: *Omnibus Graphics Center, New York*

Talk about your global village. Here's a spot with a Portuguese voiceover, created by the New York branch of a Canadian production company, for an American-owned Brazilian agency representing a Dutch multinational client. However complicated all that is, the commercial is simplicity itself. This spot beats the drums for Shell Oil. And while that's happening, computer graphics smoothly transform the drum into a quart-sized oil can. Even though it's over in 10 seconds, you've got the message. No? They'll get you next time, when they air the saxophone spot or the piano spot. Not too exciting or creative? That depends on your point of view. Like it or not, you may be looking at the future—short and simple.

Backstage: April 18, 1986

Omnibus Creates Sports City For ESPN



Omnibus Computer Graphics Center created ESPN Sports City.

In its new package of promos, ESPN gives viewers a tour of the "ultimate sports city." The 4½-second promos (seven in all, one for each day of the week) were created by Omnibus Computer Graphics Center in New York.

In each of the promos, the viewer is presented with a different vista of ESPN Sports City. "Sunday" features a flyover of the entire city, complete with indoor and outdoor stadiums, an indoor track, tennis courts and at least seven baseball diamonds. "Tuesday" takes the viewer strolling down a city street, past a replica of ESPN's Bristol, Ct. building, past several satellite dishes, and past a bus stop, its shelter sporting an athletic ad.

Several images recur throughout the promos, lending promotional value and continuity to the package. The ESPN logo appears everywhere—sometimes subtly, as when the ESPN mobile unit darts down a side street, and sometimes conspicuously, as when an aerial view reveals that the tops of four adjacent buildings spell ESPN.

"We wanted to show visually the depth and breadth of our sports programming," said **Bill Ketcham,** ESPN vice president of consumer marketing. "As we fly over the nosebleed section of a football stadium, we see billboards of football players perched where the scoreboard might have been. As we approach the indoor arena, we see billboards of hockey players checking each other."

"The billboards are actually photographs we scanned in and texture mapped," said **Floyd Gillis,** the Omnibus creative director who designed, storyboarded and animated the package. "In future work for ESPN, we will be scanning live video footage into the billboards to create more movement."

"By having many moving objects and subtle details, we tried to create a believable ESPN Sports City," said Gillis. "Planes are always taking off or landing. Cars, trucks and buses are always heading towards another event. By placing all this city hustle within a computer generated world of clouds, mountains and sea, we conveyed the totality of ESPN Sports City."

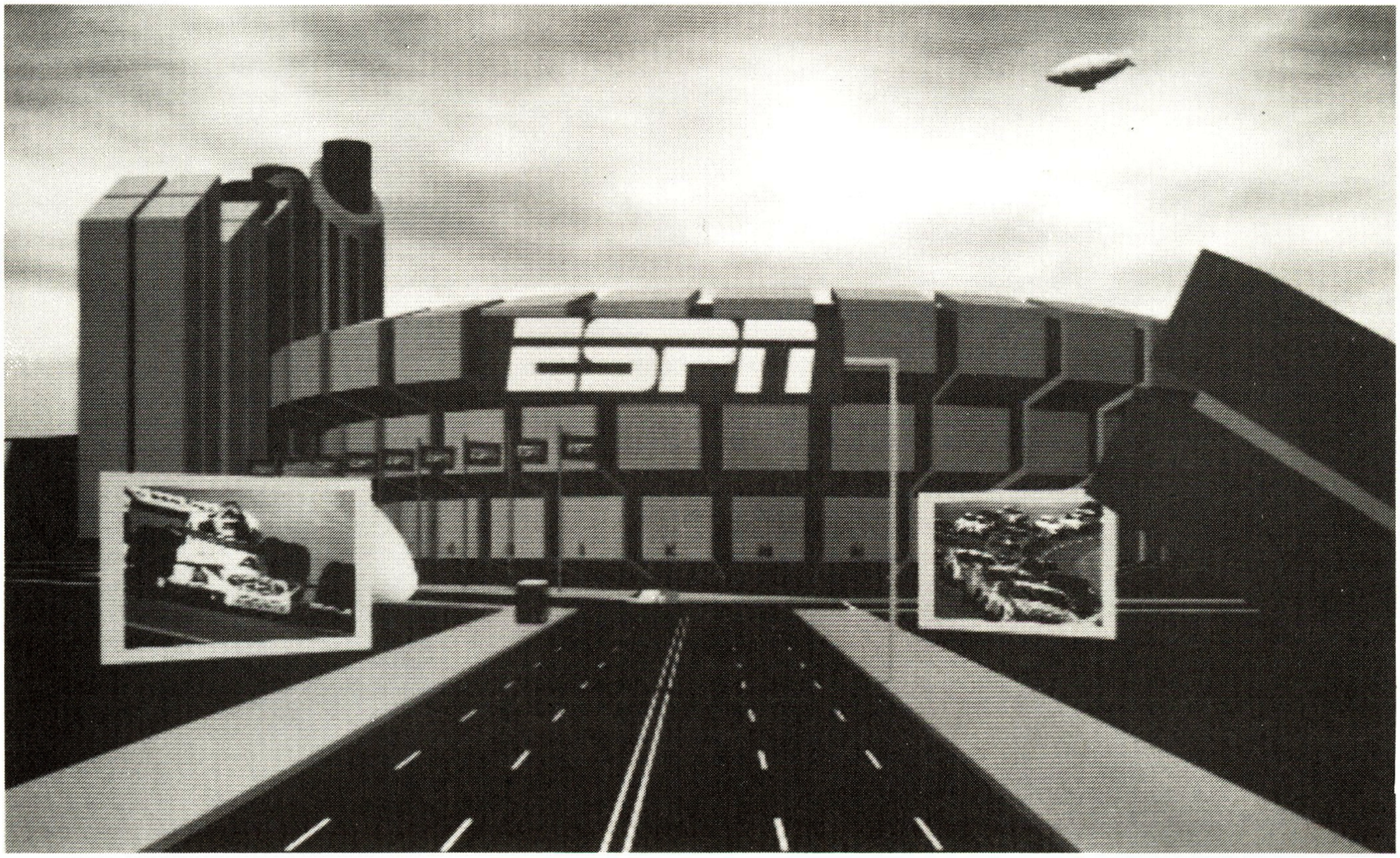
For ESPN, **Roger Werner** is executive vice president and **Dave Smith** is director of broadcast promotion. For Omnibus, **Henry Frenzel** is technical director and **Jeff Marvin** is account director/producer. Assisting Gillis in data generation are **Eric Ladd, Stan Cohen, Rod Paul** and **Sonya Haferkorn.**

For more information, please call **George Heywood** at Omnibus Computer Graphics Center, 508 West 57th Street, New York, NY 10019, (212) 975-9050; **Ed Johnson** in Hollywood, at (213) 468-4620; or **Joe Martin** in Toronto, at (416) 489-6020.

BACK STAGE

Omnibus Creates Sports City For ESPN

April 18, 1986



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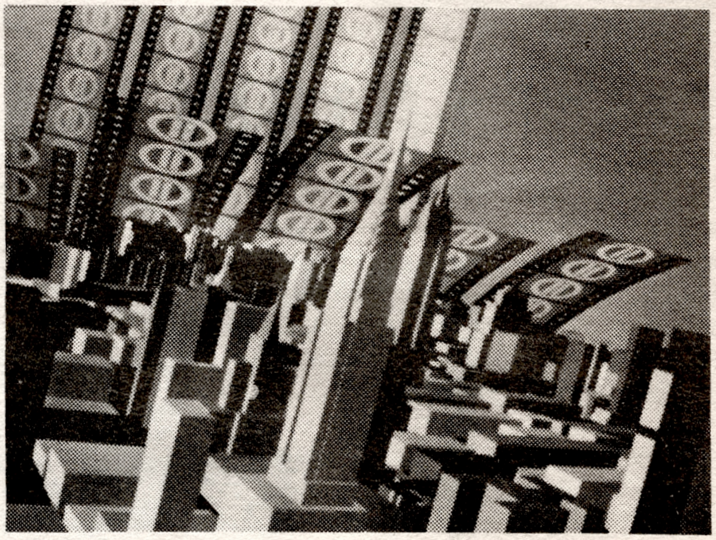
Backstage: November 1, 1985

Omnibus Makes Manhattan For WPIX Pix Package



How many midtown Manhattan landmarks can you spot in this Omnibus project for WPIX?

WPIX-Channel 11 has been exerting considerable effort to acquire and air outstanding feature films and popular programming. When the time came to showcase these programs in an eye-catching fashion, WPIX gave the green light to Omnibus Computer Graphics Center.

''We felt computer graphics would give our movie openings a contemporary and important feel,'' said **Paul Bissonette,** WPIX vp/creative services.

Omnibus creative director and animator **Floyd Gillis** set out to storyboard a concept that would endure repetition impressively. ''Knowing the idea would air throughout each week in 24 different versions with different sound tracks, I wanted to create a detailed piece to immediately and continually involve viewers,'' he said.

Gillis came up with a slow fly-over of a computer generated Manhattan, with strips of film rolling into a dome over the city. Each frame in the strips bears the WPIX logo. In a close-up of one strip, the viewer will see highlights of the hit films WPIX airs. Gillis left these frames blank in the original piece to give WPIX the freedom to change the live action scenes.

''The design gives us flexibility,'' Bissonette said. ''We can refresh the pieces with new clips every few months, according to our promotional needs.''

The details Gillis envisioned were executed by animator **Stan Cohen.** In order to generate a facsimile of Manhattan, Gillis and Cohen consulted many maps and architectural books, but they found no source detailing from Battery Park to Central Park South, both the scale of the city and its landmark structures.

''I finally struck gold with a map the City Planning Commission gave me,'' said Cohen. ''And I was able to decipher the exact locations and dimensions of landmarks.''

There are 82 replicas of buildings, according to Cohen, and the rest are generic structures. Among the replicas are: The World Trade Center, Metropolitan Life, Empire State, Madison Square Garden, Public Library, McGraw-Hill (home of *Back Stage*), PanAm, RCA and Citicorp.

As expected, difficulties arose when Cohen digitized each building. ''The Empire State and Chrysler buildings were the most time consuming—all those scales on Chrysler's crown!'' Cohen also said true Manhattanites will detect that Omnibus slightly repositioned the AT&T and Citicorp buildings to enhance their visibility. Taking poetic license, Cohen turned the AT&T building northeastern to reveal the Chippendale crown, and the Citicorp he turned westward to expose the slanted roof.

The view of Manhattan is seen seemingly from a plane gently careening northbound from Battery Park. Five film strips form a background into which the Twin Towers seem to merge. As the plan glides northward, the strips roll into a dome over the city. One of the strips zooms in to occupy the screen, and it is here the WPIX inserts their promotional scenes.

The computer's camera zooms out to a medium shot, again encompassing the 5 arched strips. Suddenly a searchlight beams skyward (Macy's advertising a special?), punching through a frame and illuminating the WPIX logo. The logo then rolls forward with the strip, halts and becomes 3-dimensional. The title: 8:00 Movie, Saturday Movie, Star Movie or Sunday Movie appears above the logo in strong 3-dimensional type, announcing the feature.

Assisting Gillis and Cohen were Omnibus technical director **Henry Frenzel,** production coordinator **Nadeen Kaplan** and account director **Paula Blaschka.** For WPIX, **John Allison, Myles Tanaka** and **Alberto Knie** assisted Bissonette.

For more information, call **George Heywood** at Omnibus Computer Graphics Center, 508 W. 57 St., NYC 10019 (212) 975-9050.

OMNIBUS COMPUTOR GRAPHICS, INC.:

Changing the Images of Movies and TV!

Established in 1981, Omnibus has already made a name for itself in the computor graphics field as a force to be reckoned with. The company has been involved in work on some big motion pictures and has carved out a niche in television and advertising. Keep an eye on the name . . . it's going to be very-well known!

As a real mover in the high tech field, Canada's Omnibus Computer Graphics a Toronto-based computor animation firm, is looking to establish a name for itself as a company whose goal is artistic excellence. Though Omnibus has a short history, it was founded in 1981 with a start-up cost of US$300,000, it had sales of US$2.5 million in 1983 and topped that by 30% the following year. Figures for 1985 are, as yet, unavailable. Omnibus has succeeded in widening its economic base to about US$4.2 million, and is now listed on the Toronto Stock Exchange.

Omnibus is hardly an instantly recognizable name in the fast moving world of high-tech, but its work has become well known in the industry in Canada and the United States. Omnibus has designed the distinctive 3-dimensional graphics for television broadcasts of the Toronto Blue Jays baseball games, promotionals for Hockey Night, and new versions of the logo used by Canadian Television.

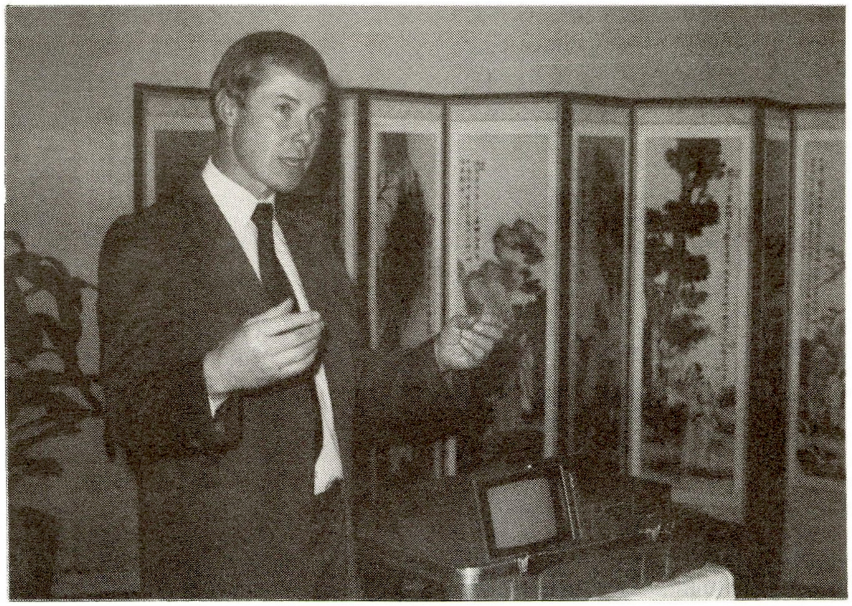
Movies

Movie-goers are probably familiar with the work the company did in the very successful "Star Trek III" as Omnibus designed several of the visual images that appeared on the computor screens of the Starship Enterprise, and others. Since its inception, the company has set up a "triangle structure" of facilities in Toronto, New York, and Hollywood that are interconnected via satellite to provide for post production on all projects for major advertising, television, and motion picture clients. Omnibus has refined its proprietary Omnis 3-D software which produces life-like simulation using high resolution images backed by five mainframe computors. Therefore, for example, if a client would like to put together a multi-media production, the various skills of those specializing in advertising, movies, and the software developers based in Toronto are linked together by the company's international network.

Computor animation has made great strides in just a few years, but top-level executives at Omnibus feel that there is still a long way to go with plenty of growth potential. If you happened to have seen "The Last Starfighter", for example, the spaceships in the film were put together by computor graphics. Such advances have become possible because people working in the computor graphics industry are pushing hard to press the limits of their creative abilities and add to this new art form.

At the Top

Omnibus has, in its short life, already pushed itself to the top of the computor graphics industry. It's in fact, a very young company in a very young industry. John Pennie, the company's president, estimates that there is a present market of about US$100



Raymond E. Carbery, Director of Omnibus

million and that this will grow by 30% annually over the next several years. With the help of a US$3.5 million computor system the company can generate high-resolution output on 35mm, 70mm, or Vistavision and can give video postproduction through direct computor output tremendously expanding possibilites.

This year, omnibus will invest about US$1.5 million in research and development of software to improve on its 3-D imagery, to enhance the life-like quality of its creations. Pennie has said that eventually the company's technicians will be able to simulate real-life figures and no one who is familiar with his successes is doubting that this will be accomplished.

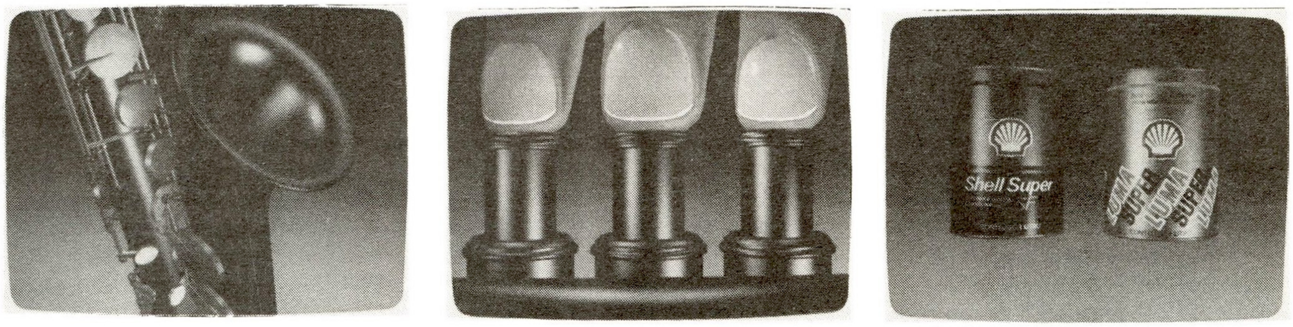
Pennie claims that in time computor graphics will be able to reproduce or manufacture "stars" with computor personalities who will look and act like real people. He says that the technology is already available and that Omnibus has succeeded in experimentally developing such "people" for the screen. The future of the industry will ultimately expand to 50% annual growth and will have a market value of over US$1 billion, according to Pennie.

Omnibus technicians create their special effects on an electronic drawing board. The coordinates of each point of an object are fed into a computor and an image of the desired object appears on the screen. At this point the computor is programmed to change the movements of the object to fit the desires of the programmer. The ultimate goal in Pennie's plans are for total reality in the movements coming off the screen. But this will not be easily accomplished. In any kind of body movement or changes in facial expressions there are innumerable variations which must be contended with to produce not only clarity but a believable image. Yet, if we look back on the animation which has come out of the Walt Disney Studios over the years, it should be remembered that then, too, people were saying that such lifelike qualitites could not be reproduced in drawing. They were wrong.

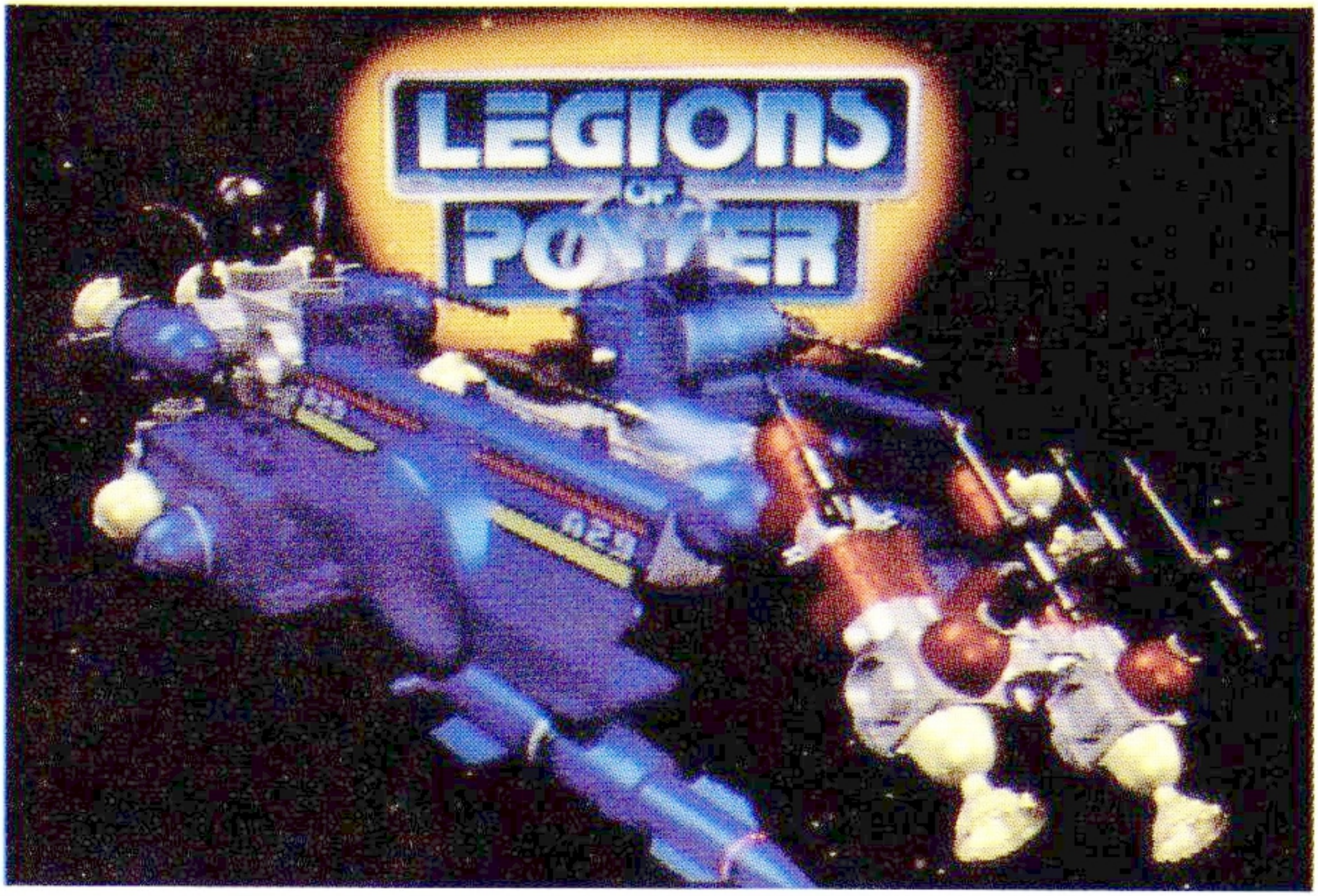
Sales

In August of last year, Omnibus established offices in New York to provide for computor animation, graphics, and special effects in the world's largest media market. The move to Hollywood has provided Omnibus with experience in some big-name motion picture projects which not only made its work known in the American movie industry, but has whetted the company's appetite for more creative and advensuresome endeavors. Omnibus is hopeful of American sales to be in the US$4-5 million range this year, with expansion of technology and profits to follows.

Anyone who follows the fortunes of computor-related firms can offer several examples of companies that have taken off quickly only to disappear with little trace. However, the highly experienced and imaginative management which characterizes Omnibus Computor Graphics, Inc., may just make this company one which will merit special attention. As computor graphics become a more and more important aspect of movies, television, and advertising, Omnibus could quickly become the household word of the future in high-tech.

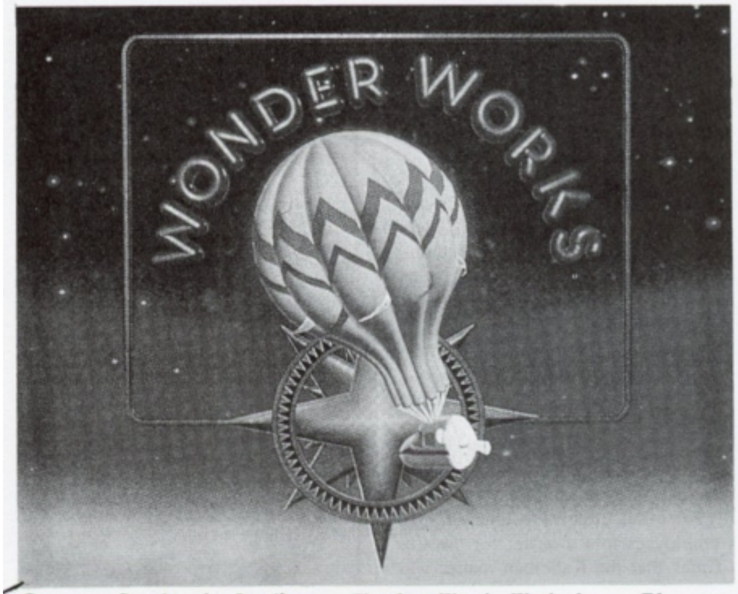


Advertising graphics done by "Omnibus" for Shell Oil Co., for television. Note the beautiful colors and clarity.



"Legions of Power—Good and Evil" :30 (Tonka Toys) **Agency:** Jordan, Manning, Case, Taylor & McGrath; **Creative Dir.:** Mark Itkowitz; **Art Dir.:** Michael Parman; **Agency Prod.:** Bob Van Buren; **Production Co.:** Omnibus Computer Graphics; **Producer:** Jeff Marvin; **Animators:** Rodian Paul, Floyd Gillis, Stan Cohen; **Budget for electronic graphics:** $32,000; **Production Notes:** Created with Silicon Graphics IRIS workstation and VAX 11/780; recorded on Ampex VPR-3 through Ikonas frame buffer.

Film News INTERNATIONAL
November 1984
$1.95



Computer Graphics by Omnibus — -Shot from Wonder Works done on F1 computer

OMNIBUS COMPUTER GRAPHICS OPENS LA PRODUCTION FACILITY

LOS ANGELES—Omnibus Computer Graphics Center, Inc. has just opened new facilities in Los Angeles in conjunction with its expansion plans. The computer animation company already has offices in Toronto and New York and is the first organisation in the field to have three separate production sites.

Each facility has its own hardware and software tools and full digital animation capabilities. Omnibus researchers have developed their own software program (OMNIS) to generate 3D images on the company's four DEC/VAX computers. The Toronto office has designed I.D. packages for Canadian networks such as CTV and CBC, and did the control room computer images for *Star Trek-The Search For Spock*. Omnibus New York just completed *Wonderworks* for WQED Pittsburg, a PBS station. It also has the ability to ouput on PAL and SECAM as well as the American NTSC standards. The Los Angeles operation leased Paramount Pictures' Studio G (10,000 square feet) and intends to focus on providing the industry with state of the art computer graphics at highly competitive rates. The California facilities will operate the F1 computer and software under an exclusive license from Information International, Inc. Omnibus realisations will benefit from F1's great operating speed and its high resolution level: 4000 x 6000 pixels, exceeding the quality of 35 mm films by far. Television screens only have a 512 x 512 resolution, which goes to show how well Omnibus is suited for the film industry.

Future Omnibus projects include linking the three facilities together via satellite by early 1985. There is already a high level of exchange between them, but satellite communication will allow more mobility and a better balance of the workload to eliminate bottlenecks.

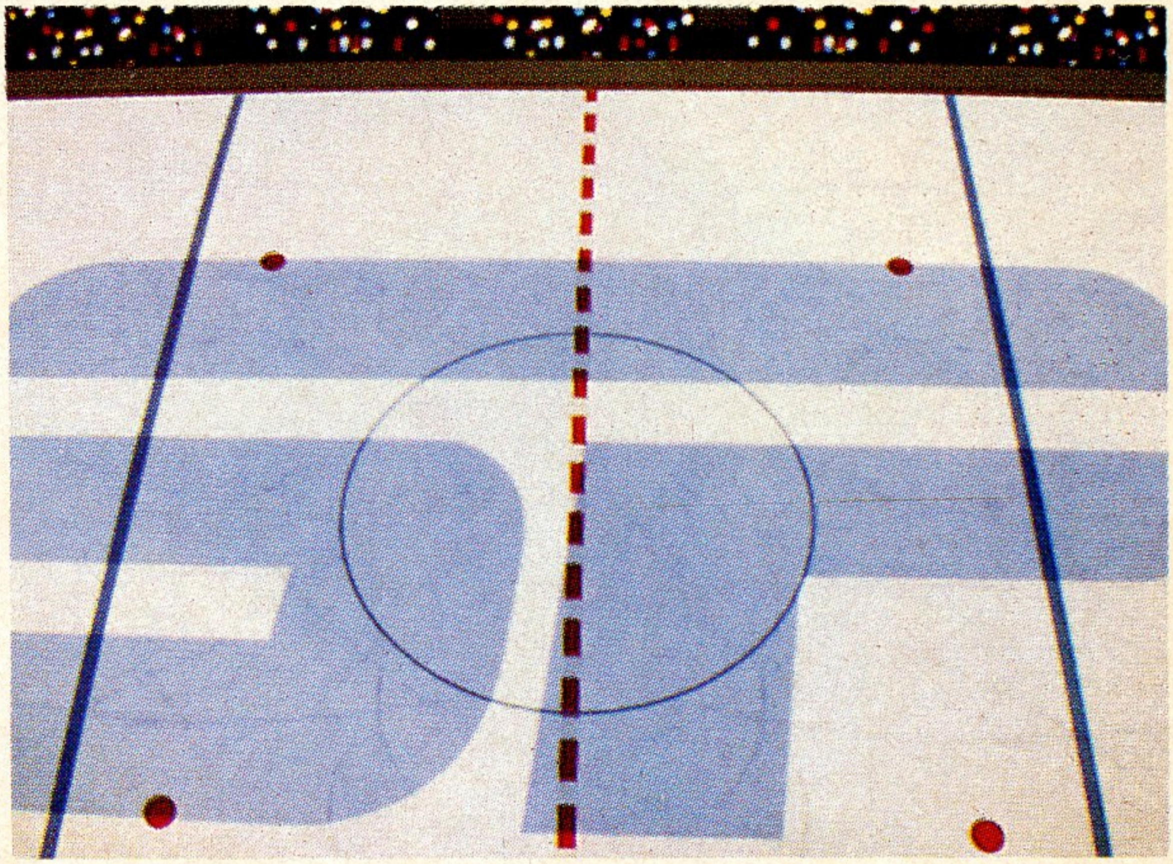
Omnibus has given high priority to its research and development efforts as it further develops various technologies in areas such as ray tracing and fractals, in order to bring their cost down. The company is also perfecting human characteristics reproduction aspects.

– *Cori Platt*

Graphics & Effects

ID'S, PROMOS, LOGOS, TITLES, AND TAGS

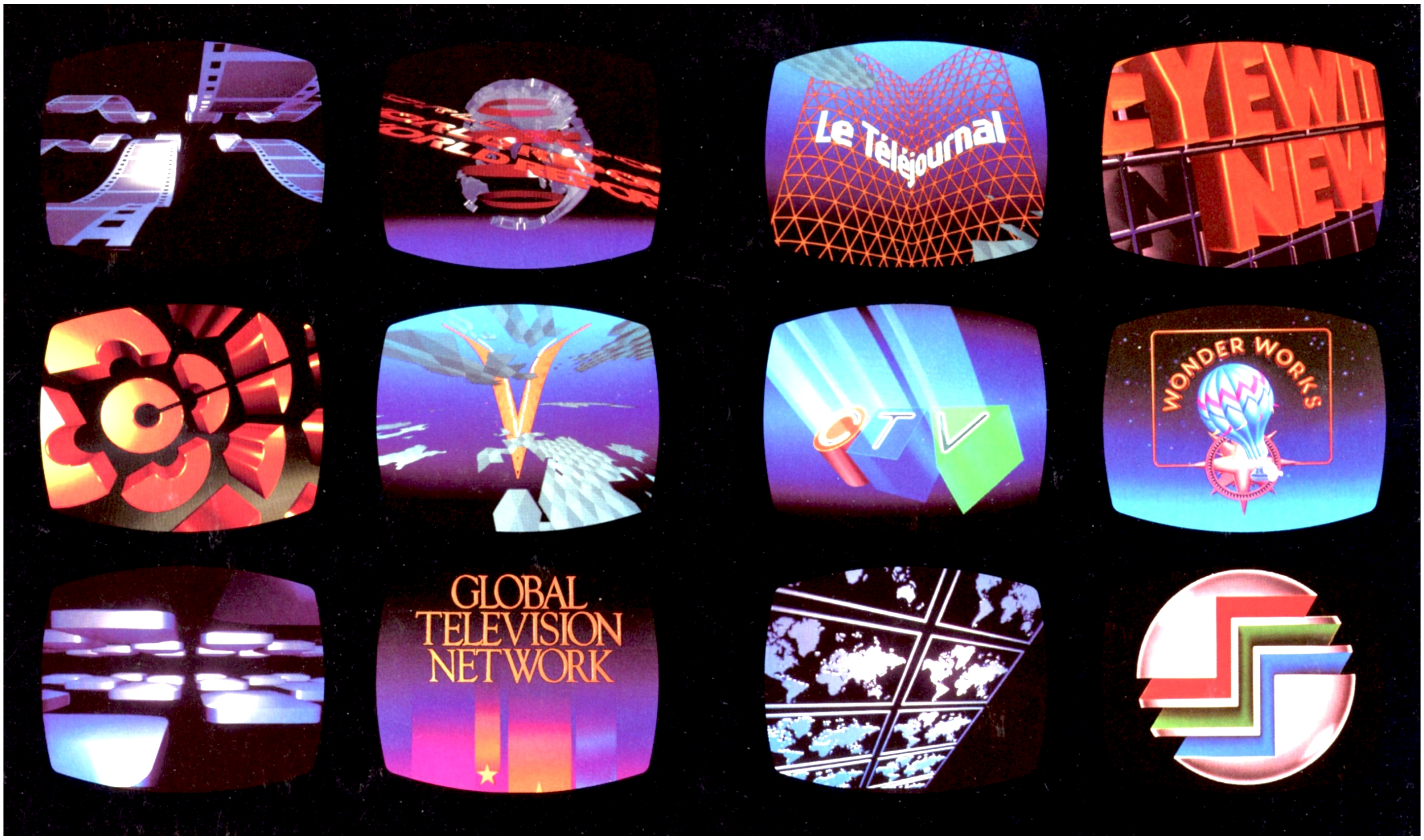
BY BARBARA SCHWARTZ



"ESPN"

Production Company —Omnibus Computer Graphics/New York
Technical Director —Henry Frenzel
Production Coordinator —Nadeen Kaplan
Creative Director —Floyd Gillis
Account Director/Producer —Jeff Marvin

"The dynamic animated logo expands on the theme of ESPN City, where sports is on!" —David Smith, director of promotion, ESPN



Watch Your Ratings Soar

Fast paced News Openings and exciting Station Promotions from Omnibus Computer Graphics

The Omnibus staff of 60 creatively charged design experts can transform your NEWS IMAGE NOW! Serving you from North America's three largest production centers, we know how to uniquely position your production to make your station's on-air look a standout for increased audience ratings!

Omnibus has designed and produced outstanding on-air computer animation for a wide range of Networks and Broadcasters. Whether updating material you already have, or producing completely new material, make sure you get the best by talking to OMNIBUS first. We'll design and produce the right promotion package just for you.

Personalized on-air packages available

Omnibus Computer Graphics' new and dramatic Promo series is designed to be "Personalized" to your station's needs and image. It contains a full series of on-air ID's produced with the latest technology to give your station a fresh, contemporary look that's unique to your market ...and at an affordable price.

Omnibus powerful 3D images that move you

In two short years Omnibus Computer Graphics has climbed to a unique position in the industry with three large scale animation facilities in New York, Toronto and Los Angeles.

Each facility's mainframe computer, running Omnibus' own OMNIS 3D imaging software, gives you the finest quality available. The Omnibus Hollywood facility which is located on the lot of Paramount Pictures Corporation has one of the fastest animation computers anywhere and produces the highest resolution available of 4000 x 6000 pixels on 35mm film. You get a complete package from design to finished tape or film ... only OMNIBUS has all post-production in-house.

Omnibus is uniquely ready to serve your creative needs. Call us:

New York	George Heywood	**(212) 975-9050**
Los Angeles	Newt Bellis	**(213) 468-4620**
Toronto	Joe Martin	**(416) 489-6020**

OMNIBUS
COMPUTER GRAPHICS

Production Facilities located at:

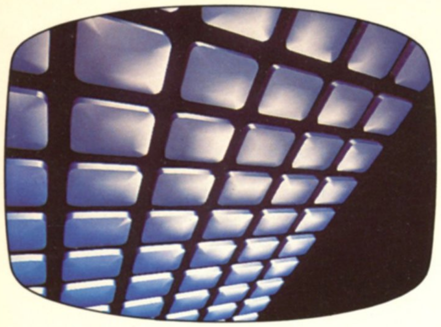
- 508 West 57th Street, New York, New York 10019
- Studio G, Paramount Pictures Corporation,
  5555 Melrose Avenue, Hollywood, California 90038
- 2180 Yonge Street, Toronto, Canada M4T 2T1

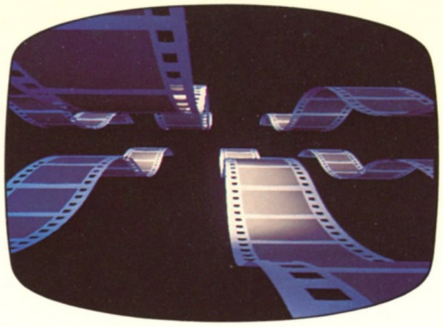
Front Cover (left to right)

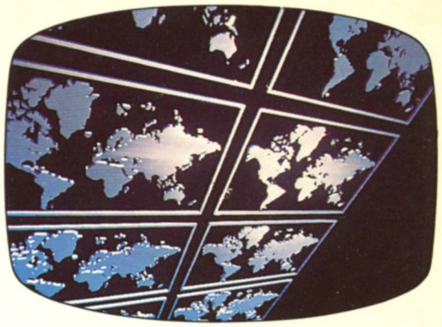
1 *Société Radio Canada, Le Téléjournal*
2 *KABC Los Angeles, Eye Witness News*
3 *CTV Television Network, on-air logos and IDs*
4 *WQED Pittsburgh, Wonderworks*
5 *Omnibus Personalized Station Package*
6 *Omnibus Logo*

Back Cover (left to right)

7 *Omnibus Personalized Station Package*
8 *Global TV Network, World Report News*
9 *Société Radio Canada, On air logo*
10 *Société Radio Canada, Le Téléjournal*
11 *Omnibus Personalized Station Package*
12 *Global TV Network, Network IDs*







Generic Station ID Package

"Station Package" Includes:

- **1 Station ID**
- **17 Promo Titles**
- **1 Custom News Opening**
- **8 Movie Intros**

EXCLUSIVITY:

Now your station can have the advantage of "MILLION DOLLAR" network animation production at a price you can afford. The latest in state-of-the-art 3-Dimensional Computer Animation has been used to create this affordable Station ID Package for your local viewing audience. This generic package will be **exclusive** to your local market, **positioning you with a very individual look for your station.**

All masters are supplied on 1" C suitable for post-production with your own local and promotional program footage.

BASIC STATION PACKAGE (27 Titles, 10 sec. each)...$5,000

CONCEPT: Electronically enhanced titles and 3-Dimensional effects, move over complimentary backgrounds, revealing a 3-Dimensional title panel or chromakey window.

a) **STATION STING:** A field of 3-Dimensional stylized Television Screens moving with dramatic motion to introduce your station call letters and programming highlights. These are projected on a 3-Dimensional title panel which flies in from out of frame.

Titles:

MONDAY • TUESDAY • WEDNESDAY • THURSDAY • FRIDAY • SATURDAY • SUNDAY
TOMORROW • TONIGHT • WEEKDAYS
SPECIAL • SPECIAL PRESENTATION • SPORTS • SPORTS SPECIAL
NEW THIS FALL • SPECIAL EVENT • RETURNS THIS FALL
STATION I.D.*

*(This will be produced from white on black artwork provided by the station for your package.)

b) **NEWS OPENING:** A move through a 3-Dimensional field of mercator projections of the world. The custom news title then locates onto a 3-Dimensional panel coming from behind the viewer.

Titles:

CUSTOM NEWS TITLE* • SPECIAL • SPECIAL EVENT

*(This will be produced from white on black artwork provided by the station for your package.)

c) **MOVIE INTROS:** A visually exciting full frame background of rolling strips of 3-Dimensional film. The 3-Dimensional foreground panel animates in from out of frame, providing a billboard for the movie titles. This will dramatically introduce your audience to the movie.

Titles:

FRIDAY NIGHT MOVIE • SATURDAY NIGHT MOVIE
SUNDAY NIGHT MOVIE • LATE NIGHT MOVIE
TONIGHT • SPECIAL EVENT • SPECIAL • SPECIAL PRESENTATION

SUPER PACKAGE (10 SEC. EACH)...$14,900

A) All off the above
B) Your station logo computer generated to form a 3-Dimension field to serve as a background.
C) 1984 3-Dimensional representative election image to serve as a background.

OMNIBUS
COMPUTER GRAPHICS INC
LOS ANGELES · TORONTO · NEW YORK

Production Facilities Located At:

LOS ANGELES
(213) 391-7192
Studio G, Paramount Pictures,
5555 Melrose Ave., Hollywood,
California. 90038

NEW YORK
(212) 975-9050
508 West 57th St., New York, N.Y.
10019

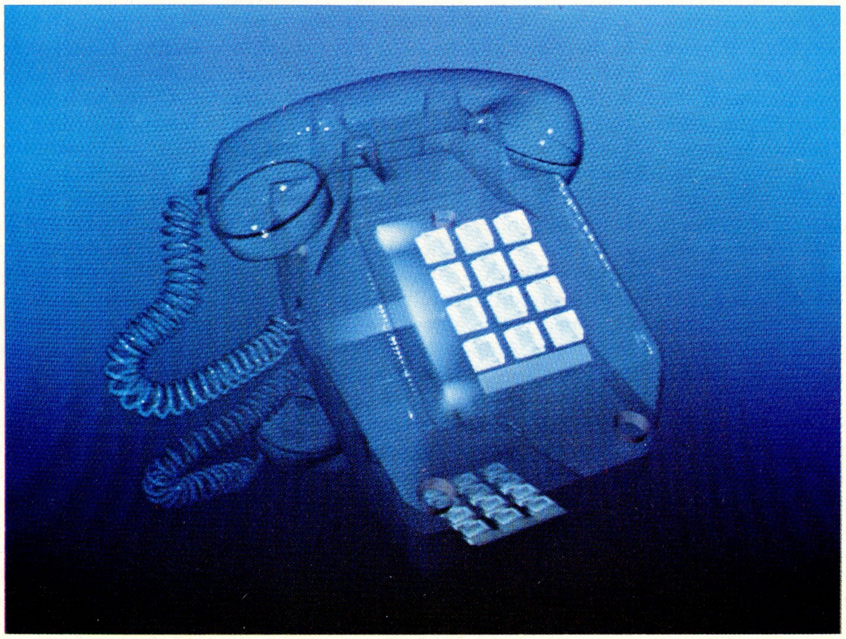
TORONTO
(416) 489-6020
TransAmerica Tower,
2180 Yonge St.,
Toronto, Canada M4T 2T1

Printed in Canada

Two Tales of Three-City Graphics Networks

Tale II:

Canada's Omnibus exports its state-of-the-art animation to the States



Ray-traced telephone created by Omnibus.

by Susan Chumsky

"Is it dark out yet?" George Heywood asked as he pressed a button at his desk to snap the vertical blinds open. It wasn't dark out, but the vice president and general manager of Omnibus Computer Graphics' New York branch couldn't resist checking, because, he says, "I love toys."

The facility he works at is full of expensive toys, with a DEC VAX 11/780 computer as their backbone. This mainframe does the computations that generate the graphics images in digital format. It hooks up not only to the computer and video hardware at the New York facility, but also to other VAXs at Omnibus branches in Toronto and Hollywood.

In addition to creating the graphics and animation that Omnibus specializes in, the hardware at the company's three facilities streamlines Omnibus' business operations. Employees at one branch can use IBM PCs to send messages to their counterparts at the other two branches via electronic mail. More importantly, the database links increase efficiency by allowing animators to share work among the three sites.

This capability expanded as of late December, when Omnibus' three sites

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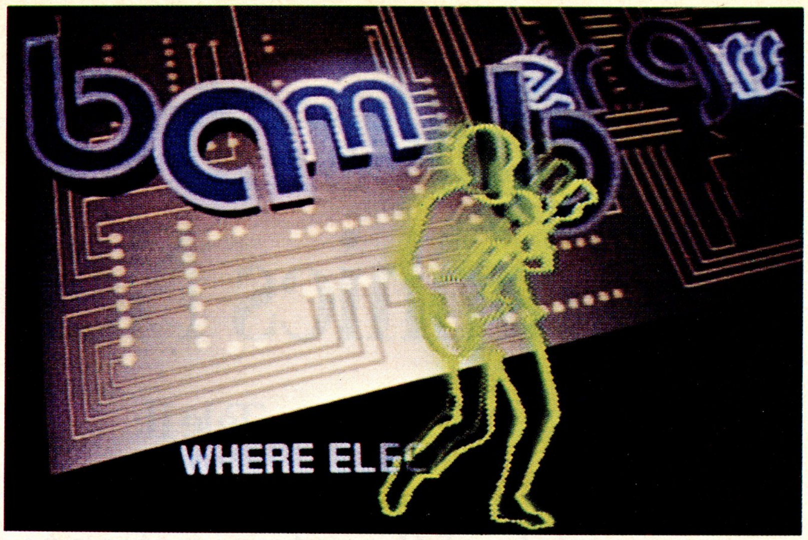
Susan Chumsky is the managing editor of *Videography*.



Still from a :30 spot for Bamberger's department store.

were linked by satellite feed. According to John Pennie, president of the publicly-held company, the satellite connection "allows us to create data files at any site and transmit them to other sites for rendering, production or recording." While database links offer this convenience also, satellite feeds make the process faster and cheaper.

If one of the Omnibus sites is overloaded with projects, or if there's an equipment failure, another site can take over. Also, Pennie says, "From the point of view of the customer, the advantage of this satellite transmission of data is that we have the flexibility to provide different types of output depending on what the end use is."

The output at the Hollywood branch is exclusively film. In Toronto the output is either film or videotape, and in New York it's only videotape. The three-city network allows a New York client, for instance, to stay in New York to oversee his or her project even if the final product will be generated on film. "It gives the client local control in working with the creative director on-site. But if it's necessary to have a portion of the work done somewhere else, that can be done," says Heywood.

Although the three facilities have similar equipment, slight differences among them might determine where the work is done on a specific project. Film projects are often delegated to Hollywood, not only because that city is a film-production capital, but also because the Hollywood facility had a Foonly F-1 computer to provide film output. At 4,000 by 6,000 pixels, the resolution yielded by the F-1 is finer than that of 35mm film. Additionally, this mainframe generates images about 10 times faster than the VAX.

New York houses Omnibus' only Picture Elements Ltd. Video Sequence Processor (VSP), a system that can record and store over four minutes worth (8,000 frames) of computer-generated graphics. "Once that information is put in there digitally, it can be played back in real time, and every time you take it out, it is a first-generation picture," says Heywood. Heywood praises the VSP's "ability to go in and really adjust. If there's a bad frame that the computer generated, we can actually take that frame out and replace it with a new one."

Of the three offices, Toronto is the only one with a full video studio and complete editing suite. This facility is equipped with paint systems, an ADO and three Ampex 1-inch VTRs. (New York has a small camera setup, an ADO and one 1-inch VTR, and Hollywood presently has no video equipment.)

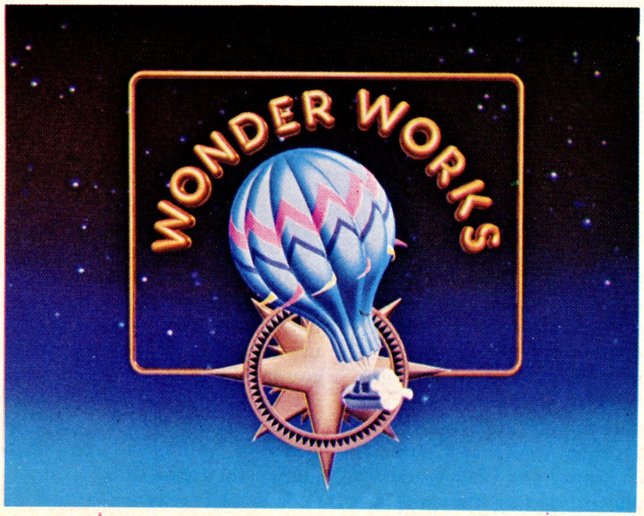
The de-emphasis of video production and postproduction hardware in New York and Hollywood is intentional. Since both of these markets were already saturated with video facilities at the time of Omnibus' arrival, the company chose to stick to its strength, computer graphics and animation. At the same time, both branches are located adjacent to a major video production and postproduction facility: Unitel Video, of New York and L.A.

Omnibus benefits from Unitel's reputation, according to Heywood. He terms their relationship "a great tie-in. They're a very well-known production and postproduction facility with a well-established client base over the years." Both companies profit when Unitel refers clients to Omnibus for graphics and animation work, since Unitel owns about nine percent of Omnibus.

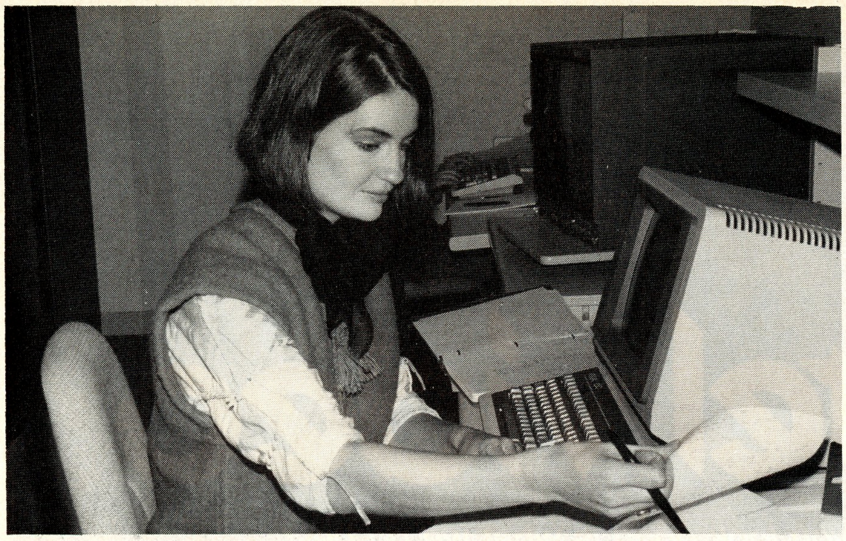
Clients of Omnibus are almost exclusively from the high-budget sectors of the advertising, broadcast and film industries. One of the first clients at the New York office, which opened last summer, was Bamberger's, part of the Macy's department store chain. Impressed by the image of a guitarist on Omnibus' demo tape, the client approached the new animation house in town to promote Bamberger's electronics department.

According to Sonya Haferkorn, one of the designers for the Bamberger's project (and for **Videography's** cover this month), the client sought to add a human touch to a basically high-tech message. The 30-second spot had to include live-action video footage of Fisher audio equipment, provided by Bamberger's.

Haferkorn and the creative director of the New York branch, Floyd Gillis, co-designed the storyboards. "Floyd came up with the idea for an electronic circuit board," which flips around and opens up into a window that frames the product shots, Haferkorn explains. "Then I thought it would be nice to do something that, first of all, fit into Floyd's idea of the circuit board, and second, had some warmth to it. So I came up with the idea of having the letters for the name Bamberger's be little lights, that plug into the circuit board and light up." The firey



A PBS series opens with Omnibus animation.



Haferkorn at graphics workstation in New York.

orange electric guitarist that had attracted the client initially became fluorescent green and danced across the screen at the spot's close. "It says electronics and it says Bamberger's," Haferkorn says, "but it does it in a warmer way than a lot of the high-tech stuff that you see."

The client approved each step, from storyboards through the motion test, the test frames and the finished animation. The designing, data creation and most of the digitizing were done in New York, but since that facility was just getting off the ground, much of the actual rendering took place in Toronto.

The artists hired by Omnibus come from diverse backgrounds, but in almost every case, the company looks for people with creative backgrounds who are interested in, though not necessarily adept at, using the computer as an artist's tool. Haferkorn, for example, did Disney-type animation before working at Omnibus; she'd had experience in moving images, but had never used a computer to simulate that motion.

"The fact is that this process is interactive with creative people," George Heywood says. "Advertising art directors are interested in the end product—how you're going to translate their ideas into a visual image. It doesn't matter to them whether you have 14 more computers than someone else, as long as you can do the project creatively, on time and within the budget."

Supporting the artistic process and the hardware tools—and every bit as crucial for the creation of distinctive graphics and animation—is software. All three facilities use OMNIS 3D software, which Omnibus co-developed last year with the California Institute of Technology, in Pasadena. The company licenses software as well, including a program developed by Information International, of Culver City, California, for the F-1 computer. (*Tron* and *Looker* are among the feature films with images produced by the F-1 with Information International software.) The Toronto facility has licenses for software from the New York Institute of Technology's Computer Graphics Lab and from Robert Abel Associates, of L.A.

A good indication of Omnibus' emphasis on software is the size of the the budget earmarked for R&D in this area: 1.1 million, with $800,000 coming from a grant from Canada's National Research Council and the balance from the company's sale of R&D tax credits last summer.

With the University of Waterloo, in Toronto, and various agencies of the Canadian government, Omnibus will co-develop software that generates more realistic 3D images at a higher speed and lower cost than that of software currently available. Omnibus also plans to develop ray-tracing software, which simulates glass surfaces by tracing the light reflected from an object.

The upshot is that Omnibus will be licensing less and developing more. "Software is really the lifeblood of this business, since the business is moving so quickly," Heywood says. "All the hardware in the world won't do you any good unless you have the software that can create the pictures. And to be on the leading edge of this business, you must develop your own."

To do so, Omnibus is in the process of setting up an in-house R&D team, to be headed by David Sieg, the Hollywood-based vice president of R&D.

Although the details have yet to be settled, Heywood says that the people who comprise this team will probably—like the creative contributors to many of Omnibus' animation projects—come from all three sites. Heywood labels Omnibus "one computer graphics facility that happens to be under three roofs." Each site has its own toys, but they all know how to share.

Henry Frenzel, technical director, at the Ampex switcher.

PEL Video Sequence Processor.